

Basic H/C pack
Bags

MATERIAL SAFETY DATA SHEET

POLYETHYLENE (LINEAR LOW OR HIGH DENSITY)

Westlake Polymers Corporation

WESTLAKE POLYMERS CORPORATION
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PRODUCT IDENTIFICATION

Suppliers: WESTLAKE POLYMERS CORP.	Chemical Names and Synonyms: POLYETHYLENE (LINEAR LOW OR HIGH DENSITY)	Emergency Telephone: (337) 882-0273
Use or Description:		Date Revised: 8/5/98

COMPONENTS AND EXPOSURE LIMITS

Component	Percent by Weight	Exposure Limit
Ethylene butene copolymer (CAS #25087-34-7) or Ethylene hexene copolymer (CAS #25213-02-9)	Approximately 100	15.0 mg/m ³ OSHA Nuisance Dust
Additives such as antioxidants, stabilizers, processing aids, antiblock and slip agents may be used in the following concentrations: 0 - 1% by weight.		

TYPICAL PROPERTIES

Appearance: TRANSLUCENT	Boiling Point: N/A	Solubility in Water: NEGLIGIBLE
pH: N/A	Odor: MILD	Vapor Pressure: N/A
% Volatility by Weight: 0.1 MAX	Specific Gravity: 0.91 - 1.05	Vapor Density: N/A
Evaporation Rate: N/A	Melting Point: F(C) 230 - 275 (110 - 135)	

FIRE AND EXPLOSION HAZARDS

Auto Ignition Temperature: NA	Flash Point: NONE	Flammable Limits in Air: NA
NFPA Hazard: 0-1-0-NA	HMIS Rating: 0-1-0-A	
Extinguishing Media: CARBON DIOXIDE, FOAM, DRY CHEMICAL, AND WATER FOG		
Special Fire Fighting Procedures: DO NOT ENTER ENCLOSED SPACE WITHOUT USING SELF-CONTAINED BREATHING APPARATUS		
Unusual Fire and Explosion Hazards: Bulk storage of polyethylene pellets may result in the accumulation of ethylene gas with possible explosive potential; concentration of ethylene gas must be kept below the lower limit (LEL) OF 2.7% .		

HEALTH HAZARDS

Acute Health Effects: EYES: DUST MAY CAUSE IRRITATION OR REDNESS; FUMES FROM MOLTEN PRODUCT MAY CAUSE IRRITATION OR REDNESS SKIN: PRODUCT AS IS SHOULD NOT CAUSE IRRITATION OR DERMATITIS; MOLTEN PRODUCT MAY CAUSE THERMAL BURNS INHALATION: INHALATION OF FINES OR FUMES FROM MOLTEN PRODUCT MAY CAUSE IRRITATION TO THE NOSE OR THROAT INGESTION: NOT EXPECTED TO CAUSE ADVERSE REACTION IF INGESTED	Medical Conditions: NONE ARE KNOWN	Primary Routes of Entry: INHALATION, INGESTION
Chronic Health Effects: NONE ARE KNOWN	Aggravated by Exposure: NONE ARE KNOWN	
Carcinogenicity Status: Occupational Safety and Health Administration: NOT LISTED National Toxicity Program: NOT LISTED International Agency for Research on Cancer: NOT LISTED		
Toxicological Data: NON-TOXIC BASED ON STUDIES OF SIMILAR PRODUCTS AND THEIR COMPONENTS		

FIRST AID PROCEDURES

Eyes:	FLUSH WITH PLENTY OF WATER; IF IRRITATION CONTINUES, GET MEDICAL ATTENTION
Skin:	WASH SKIN WITH SOAP AND WATER, FOR THERMAL BURNS, COOL MOLTEN MATERIALS WITH WATER AND GET MEDICAL ATTENTION
Inhalation:	IF OVERCOME BY DUST OR FUMES, REMOVE TO FRESH AIR; IF BREATHING IS DIFFICULT, GIVE OXYGEN AND GET MEDICAL ATTENTION; IF VICTIM HAS STOPPED BREATHING, GIVE ARTIFICIAL RESPIRATION AND GET MEDICAL ATTENTION
Ingestion:	NO FIRST AID MEASURES SHOULD BE NECESSARY

PERSONAL PROTECTION

Respirator:	WEAR DUST MASK IF DUST LEVELS EXCEED 15.0 mg/m ³
Skin:	PROTECTIVE GLOVES AND LONG SLEEVES WHEN HANDLING MOLTEN MATERIAL
Eyes:	SAFETY GLASSES SHOULD BE WORN AT ALL TIMES; SAFETY GOGGLES SHOULD BE WORN WHEN HANDLING MOLTEN MATERIAL
Ventilation:	LOCAL VENTILATION IS RECOMMENDED TO REDUCE DUST AND FUMES WHEN HANDLING MOLTEN MATERIAL

REACTIVITY DATA

Hazardous Thermal Decomposition Products:	INCOMPLETE COMBUSTION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE, ALDEYDES, HYDROCARBONS, FORMALDEHYDE.
Stability:	MATERIAL IS STABLE
Incompatible Materials:	THIS MATERIAL IS INCOMPATIBLE WITH STRONG OXIDIZERS
Hazardous Materials:	NONE ARE KNOWN
Hazardous Polymerization:	WILL NOT OCCUR

SPILL LEAK AND DISPOSAL PROCEDURES

Spill and Leak Procedures:	SWEEP OR SHOVEL UP AND HOLD FOR DISPOSAL
Waste Management Procedures:	PRODUCT IS NON-HAZAROUS IN ITS NEAT FORM
Environmental Impact:	THIS MATERIAL IS NOT EXPECTED TO PRESENT ANY ENVIRONMENTAL PROBLEMS

ADDITIONAL PRECAUTIONS

Storage:	STORE IN A VENTILATED AREA AWAY FROM SOURCES OF IGNITION; DO NOT STORE WITH INCOMPATIBLE MATERIALS
Transfer:	STATIC GROUNDING RECOMMENDED PRIOR TO TRANSFER OF PRODUCT

REGULATORY DATA

Occupational Safety and Health Administration:	NUISANCE DUST	CONEG:	NOT REGULATED
Resource Conservation Recovery Act:	NOT REGULATED	Clean Air Act:	NOT REGULATED
Superfund Amendments Reauthorization Act:	NOT REGULATED	Proposition 65:	NOT REGULATED
Department of Transportation:	NOT REGULATED		

USER RESPONSIBILITY

This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of the user's operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety contained in this bulletin should be provided to employees and/or customers. Westlake Polymers Corporation must rely on the user to use this information to develop appropriate work practice guidelines and employee instructional programs specific to the user's operations.

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ExxonMobil Chemical Enable™ 20-10 Series Metallocene Polyethylene Resin

ExxonMobil
Chemical

Enable™ 20-10 Series Metallocene Polyethylene Resin

Product Description

Enable 20-10 resins are metallocene ethylene-hexene copolymers. Enable mPE resins offer an outstanding balance between processing and film properties, including tensile, impact and puncture. Enable 20-10 resins are available for blown film, both formulated and non-formulated. A heavily stabilized formulation for cast film processing is also available.

General

	Latin America	North America	South America
Availability ¹			
Additive	<ul style="list-style-type: none"> Enable 20-10HE: Antiblock: 2000 ppm; Slip: 500 ppm; Processing Aid: Yes; Thermal Stabilizer: Yes Enable 20-10CB: Antiblock: No; Slip: No; Processing Aid: No; Thermal Stabilizer: Yes Enable 20-10HA: Antiblock: No; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes 		
Applications	<ul style="list-style-type: none"> Agricultural Film Blown Film Cast Film Cast Stretch Film 	<ul style="list-style-type: none"> Food packaging Form Fill And Seal Packaging Heavy Duty Bags Lamination Film 	<ul style="list-style-type: none"> Multilayer Packaging Film Shrink Film Stand Up Pouches Stretch Film
Revision Date	December 2012		

Resin Properties	Typical Value	Unit	Test Based On
Density	0.920	g/cm ³	ExxonMobil Method
Melt Index (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Peak Melting Temperature	237	°F	ExxonMobil Method

Film Properties	Typical Value	Unit	Test Based On
Tensile Strength at Yield MD	1400	psi	ASTM D882
Tensile Strength at Yield TD	1600	psi	ASTM D882
Tensile Strength at Break MD	8300	psi	ASTM D882
Tensile Strength at Break TD	7700	psi	ASTM D882
Elongation at Break MD	520	%	ASTM D882
Elongation at Break TD	730	%	ASTM D882
Secant Modulus MD - 1% Secant	30000	psi	ASTM D882
Secant Modulus TD - 1% Secant	33000	psi	ASTM D882
Dart Drop Impact	190	g	ASTM D1709A
Elmendorf Tear Strength MD	120	g	ASTM D1922
Elmendorf Tear Strength TD	560	g	ASTM D1922
Puncture Force	10	lbf	ExxonMobil Method
Puncture Energy	27	in-lb	ExxonMobil Method

Optical Properties	Typical Value	Unit	Test Based On
Gloss (45°)	61		ASTM D2457
Haze	7.1	%	ASTM D1003

Legal Statement

ExxonMobil Chemical Enable^{1M} 20-10 Series Metallocene Polyethylene Resin page 2 of 2

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

This product is not intended for use in medical applications and should not be used in any such applications.

Processing Statement

Film (1 mil / 25.4 micron) made from Enable 20-10HA on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 398 °F (203 °C), a 30 mil (0.76 mm) die gap at a rate of 10 lbs/hr/in die circumference (1.79 kg/hr/cm).

Notes

¹ Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

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Typical properties; these are not to be construed as specifications.

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